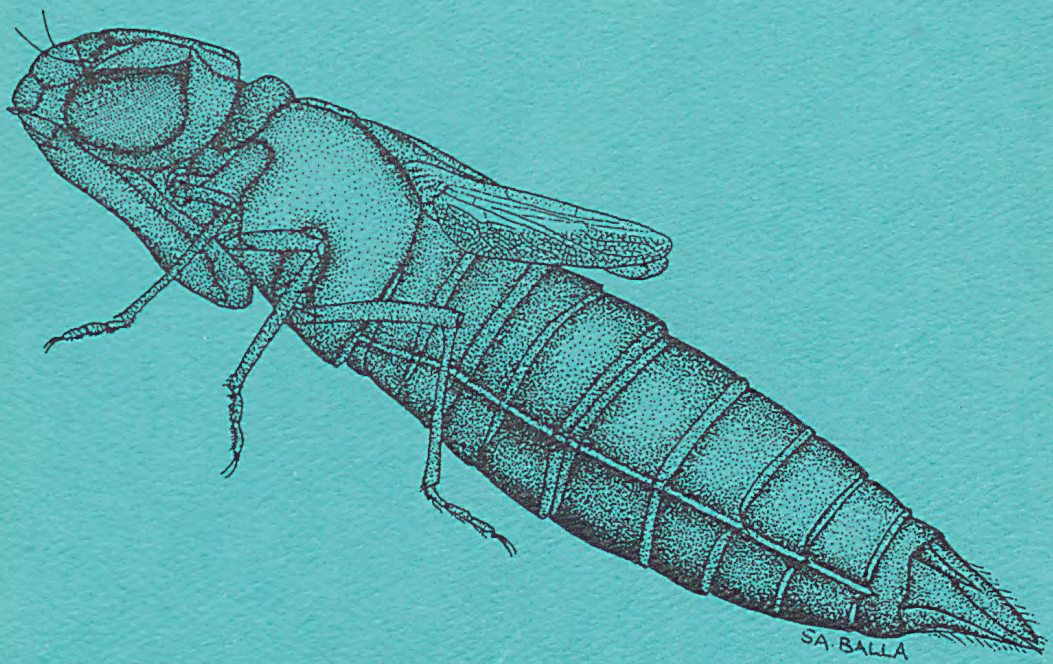
AUSTRALIAN SOCIETY FOR LIMNOLOGY

NEWSLETTER



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Australian Society for Limnology

Office-Bearers - 1988/89

President:	Dr Jenny Davis Biological and Environmental Sciences, Murdoch University, Murdoch, WA , 6150. (09) 332 2628
Vice-President:	Dr Rod Oliver MDRFC, PO Box 921, Albury, NSW,2640 (060) 431 004
Immediate Past President:	Dr Terry Hillman MDRFC, PO Box 921, Albury, NSW,2640 (060) 431 002
Membership Officer/Treasurer:	Mrs Margaret Hart 22 Netherby Avenue, Mulgrave, Vic.,3170 (03) 560 4406
Secretary:	Dr Richard Marchant Museum of Victoria, 71 Victoria Crescent, Abbotsford, Vic., 3067 (03) 419 5200
Newsletter Editor:	Dr Jenny Davis Biological and Environmental Sciences, Murdoch University, Murdoch WA 6150 (09) 332 2628
Presentation and Layout:	Fiona Whittles
Editorial Assistance:	Fiona Whittles, Colleen Hubbard, Murdoch University, Murdoch WA 6150
Cover Design:	Shirley Balla, Larva of Hemianax papuensis.

Australian Society for Limnology Newsletter

Volume 27 Number 1 February 1989

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Copy deadline for next issue:

Material for publication in the May issue of the Newsletter should be sent to the Editor before 21 st April 1989.

Fax (09) 332 2507

Long articles would be appreciatively received in any one of the following three modes: as camera-ready laser printed copy (New York, 12pt, fully justified), as formatted text on Macintosh disc, or as unformatted text on IBM or IBM compatible discs.

Australian Society for Limnology

The Australian Society for Limnology is an association of over 400 people with professional or amateur interests related to Australian inland waters. Since its inception in 1961, the Society has played an important role in fostering limnology in this country. The ASL promotes liaison between limnologists in academic, private and governmental institutions and has a vested interest in the conservation of aquatic and related resources. Annual conferences are held near centres of limnological interest, and the programme includes scientific sessions, field excursions and social activities.

The ASL produces a newsletter with notes on activities, articles of general interest, book reviews and conference announcements; a Bulletin of original scientific papers and occasional Special Publications. A further publication is the Directory of Australian Limnologists.

Membership details

Membership applications are welcome; five classes of subscribing membership are available:

Ordinary Members:	$20.00
Student Members:	$10.00
Life Members:	$200.00
Institutional Members:	Fees on application
Sustaining Members:	Fees on application

Membership subscriptions cover the period from 1 July to 30 June and members receive all publications. Members may also choose to receive the Australian Journal of Marine and Freshwater Research, the Australian Journal of Zoology and/or the Australian Journal of Botany at reduced rates. The subscription period for each journal is the calendar year following the year in which the subscription is paid.

Enquiries relating to membership should be directed to:

Mrs M. Hart
Treasurer/Membership Officer ASL
22 Netherby Avenue
Mulgrave Vic. 3170
(03) 560 4406

Editorial

This newsletter is one of those that falls into the category of "better late than never". The reason for the delay of the publication of the February Newsletter until well into March (and hopefully not April) rests totally with the Editor, who hasn't quite surfaced from the beginning of another Uni first semester!

In addition to the regular items your Newsletter this month should include the registration form for the Canberra Congress, a leaflet calling for nominations for the 1989 Jolly Award and a questionaire from FASTS. Your attention is also drawn to the Information on Student Travel Awards for the Canberra Congress given in this issue and the change of dates for the 1990 Jabiru Congress. With the recent adoption of semesters rather than terms by most tertiary institutions the May Common Week no longer exists but rather has been replaced by a Common University Week in April and another in July. At this point the Jabiru Congress has been brought forward to the Common Week in April but the suitability of this time may need to be discussed further at the Canberra AGM.

One more edition of the Newsletter (May) will be published before the July Congress so please send any items that you feel may be relevant or need circulation to all members before the Congress and AGM as soon as possible.

President's Report

A second Teleconference Executive Meeting was held on February10th, 1989. Participants included: Max Finlayson (NT), Stuart Bunn (Qld), John Harris (NSW), Tim Doeg, Margaret Hart and Richard Marchant (Vic), Richard Norris (ACT), Rod Oliver (Albury), Pierre Horwitz (Tas) and myself (WA).

Unfortunately due to "congestion on the lines" the teleconference was not as sucessful as the first one, it being much harder to hear most participants combined with the disconcerting loss into the ether of the ends of the sentances of the Victorian participants. However, despite the technological hiccups a range of topics was discussed. Perhaps the most positive outcome of this teleconference was the fact that we will be better prepared to discuss a number of issues at the next executive meeting to be held at the beginning of the Canberra Congress in July.

Jenny Davis

ASL CONFERENCE, CANBERRA 7-9 JULY 1989

The 28th Annual Congress will be held at the Canberra College of Advanced Education, Canberra with a keynote session on the first day on the theme "Information Transfer: Science to Management".

All Conference activities will take place at the College (possibly called ANU by then), which has accommodation, conference facilities, a restaurant, and a bar. Caravan and camping facilities are available within 5 km of the College. Registration charges will be $80 and will include the abstracts, lunches, morning and afternoon teas. Some funds will be available to assist student members who wish to attend and present a paper at the Conference. A number of tours of limnological interest in the local area will be offered.

Submitted papers on an aspect of limnology are now invited. Presentations may be oral (15 minutes in total, 10 minutes presentation followed by 5 minutes discussion time) or by way of a poster. The registration form is included with this edition of the Newsletter.

ASL 29TH ANNUAL CONGRESS

Jabiru *20-23 April 1990

Details of registration and a call for papers will be made following the July 1989 Congress in Canberra. If you wish to have first choice of the accommodation and field trip options you will need to register BEFORE the advertised closing date (it will be early so get organised).

Pre-congress Symposium *19 April 1990

"Water Management in the Alligator Rivers Region." Invited speakers from the mining industry, government regulators and research institute addressing major aspects of this applied topic. A technical tour of an operating uranium mine is one option being investigated.

Organising committee: *Max Finlayson, Doug Holdway, Kay Bailey, Chris McQuade, Don Anderson., Micheal Mannion.*
Enquiries: *Micheal Mannion (Tel. (089) 792 300, Fax (089) 792 076, Telex 85457).*

* Please note the change in dates to accomodate the University common week in April. A common week in May no longer exists.

RULES FOR STUDENT TRAVEL AWARDS

Assistance by ASL for Limnology Research Students to Present Research Results at the Annual Congress:

Applications are invited from limnology research students for assistance in meeting the expenses associated with attendance and presentation of a paper on their work at the 28th Annual Congress of the Australian Society for Limnology to be held in Canberra from July 7 th - 10 th, 1989. The purpose of this assistance is to bring the results of significant limnological research in Australia to the attention of those who can make use of it. It is also aimed at encouraging students to present the results of their work in public. The following rules apply to this assistance:

1. Assistance shall be granted on the recommendation of a panel of three appointed by the Society.
2. A maximum of five awards to a maximum total of $1000, depending on the location of the student in relation to the congress venue, will be made each year.
3. Applicants must be full-time postgraduate students at any Australian University, College of Advanced Education or Institute of Technology. There is no age limitation. Applicants must have been current financial members of the Australian Society for Limnology for at least 1 yr.
4. Applications will be invited from students who are carrying out fundamental or applied research in any branch of limnology for the purpose of a higher degree.
5. Applications shall include a written statement of no more than 2000 words describing the research currently under study, its significance to the community and the stage that has been reached. This statement must be endorsed by the Student's Supervisor. It will also include an abstract of the proposed paper which would be given at the Congress if assistance is granted.
6. Award of assistance shall be judged on the following criteria: (i) Significance of the work to the community. (ii) Originality and soundness of the research. (iii) The progress made and whether the stage has been reached where something useful can be presented. (iv) Ability to present a clear and concise statement of the research study.
7. Applications and submissions must be lodged with Dr Richard Marchant, Museum of Victoria, 71 Victotia Crescent, Abbotsford, 3067, by the 1st of May 1989. The students to whom assistance is granted will be informed by the 31 st May, 1989.

BOOK REVIEWS

The Conservation of Australian Wetlands Edited by A.J. McComb and P.S. Lake. Surrey Beatty and Sons Pty Ltd, Chipping Norton, NSW 2170 196 pages plus 10 pages of colour plates. Recommended retail price (Australia) $50

Reviewed by John Blyth, CALM, Western Australia

Members of ASL may remember an advertisement for this book in the last newsletter, in which, amongst the eighteen authors of eight chapters, were listed some of the best known names in Australian limnology.

The book is a collection of papers from a workshop held in Canberra in February 1986 to review wetland conservation in Australia. The workshop was funded by World Wildlife Fund (Australia) and was intended to make a significant contribution to the IUCN/WWF International Year for Wetland Conservation. These proceedings of the workshop indicate that the aim was achieved, and themselves constitute an important legacy of the International Year which will be of value for years to come.

The book is made up of seven State reviews (including one for the Northern Territory) plus a resume of the approach of the Commonwealth Government to the conservation of wetlands, and a short final chapter summarising the key points resulting from discussion at the workshop.

The authors of each State review were asked to address three main questions - "the type and distribution of wetlands in each state, the nature of threats to existing wetlands, and the nature of current conservation measures and desirable future conservation steps". The task has been completed effectively for each state, although as might be expected, the emphasis and scope varies depending on the interests and backgrounds of the various authors. For instance, the Tasmanian chapter by Tyler and Kirkpatrick is heavily botanical in thrust (and rather uncompromising in its use of technical terms!), while the Victorian chapther by Norman and Corrick uses examples largely based on vertebrate animals.

The nature of current conservation measures is interpreted by most authors in terms of the number and extent of wetlands protected by some form of reserve status, and this assessment makes interesting, if somewhat depressing, reading. However, the

importance of other ways of protecting remaining wetlands is addressed by Pressey and Harris (NSW) and Lothian and Williams (SA). Mechanisms such as protective zoning under Local Environmental Plans, allocation of water for environmental purposes, and voluntary agreements to protect wetlands under a Heritage Agreement Scheme are discussed in those chapters. The issue of protecting wetlands not on reserves is an urgent one which all too often falls into "responsibility gaps" between various Government Agencies. Further examples and discussion of this issue would have been valuable.

The systematic State by State summary makes fascinating reading for any naturalist, conservationist or student of limnology: for the latter group especially, the lengthy list of references associated with each chapter will be of considerable value. The major target audience for the book, however, seems to be the professional managers of aquatic systems - members of conservation and land management departments, of water authorities and of environmental protection agencies.

With that target audience in mind, it is worth asking how well the book performs in providing information that managers can use directly to assist them in distributing resources into priorities for research, acquisiton or management. The answer is, I think, extremely well, although the level at which priorities are identified is somewhat different between chapters. The Queensland review by Arthington and Hegerl is particularly comprehensive for standing waters and provides a wealth of immediately applicable information to conservation planners and managers.

It is perhaps a pity that authors had not decided on a single definition of wetland (however arbitary) to be used throughout the book. Running waters are not considered in the Victorian and Queensland chapters, but are given considerable importance in several others, while nearshore marine habitats are specifically excluded from the NSW chapther. In a similar vein, there is great divergence in the types of classification systems used in the different chapters. Several authors mention the importance of attempting to develop an Australia-wide system of classifying wetlands but none have attempted to provide such a system. This matter was apparently addressed in discussions at the workshop and the final chapter, while not assessing particular classification schemes, does provide a set of attributes which it was agreed should be used consistently in characterising wetlands.

The book is nicely produced in hard-cover A4 format, with strong but flexible binding and typesetting, tables and diagrams consistently clear and legible. Typographical errors are few, but made more obvious by being largely concentrated into two chapters.

All in all, I think "The Conservation of Australian Wetlands" is an excellent and timely publication. It joins the growing number of valuable contributions to the literature on biological conservation in Australia being produced by Surrey Beatty and Sons, and should provide great stimulus to efforts to provide better ways of managing and conserving Australia's priceless wetland resources.

"The Conservation of Australian Wetlands" recieved one of eight commendations awarded at the Australian Bicentennial Heritage Awards held in Sydney on November 31st 1988. There were over 200 nominees for the award and according to the chairman of the judging panel the nominations for1988 were of a much higher standard than those made in previous years. The award was accepted by Ivor Beatty on behalf of the book's publishers Surrey Beatty.

P. De Deckker, J.-P. Colin and J.-P. Peypouquet (eds) (1988). Ostracoda in the Earth Sciences. Elsevier. $80 pp. i-xii + 1-302.

Reviewed by W.D. Williams.

This book is designed for the expert but nevertheless has much of value to those interested in ostracods in a general way. As the editors point out, ostracods are ideal tools for geological investigations, but to some extent have been under-utilised in this respect. To remedy the matter the editors have compiled a book which aims to document the utility of ostracods in many aspects of geological science.

The book, then, is not of primary interest to limnologists concerned with extant forms. Even so, several chapters are of interest if somewhat indirectly, e.g. those by J.W. Neal (Ostracods and palaeosalinity reconstruction), P. De Deckker and R.M. Forester (The use of ostracods to reconstruct continental palaeoenvironmental records) and P. Carbonel (Ostracods and the transition between fresh and saline waters).

De Deckker is noted as the senior editor, and it is reasonly obvious that he (and an associate, Aubrey Townsend) have carried the brunt of the work. Whatever the case, the book is a handsome one, well-illustrated and well-indexed. Limnologists will probably not want to buy it but should recommend it to their geological colleagues as an excellent introduction to the material covered.

At Last! The recognition we deserve

Flora of New Zealand, Desmids, Vol. II. By H. Croasdale and E.A. Flint. Botany Division, DSIR, Christchurch $NZ57.50

Reviewed by Peter Tyler Botany Department, University of Tasmania.

This is the second volume in an intended series of three covering all the desmids so far recorded from New Zealand. Volume I has not been reviewed in ASL Newsletter, and it is unreasonble to treat the second volume in isolation. However, because the format is almost identical in both volumes, remarks addressed to Vol. II apply in large measure to Vol. I.

The work is primarily a taxonomic account of the desmid flora and as such it has the conservative tenor of desmidiology. The first volume deals with the saccoderm desmids and the placoderm genera Closterium, Euastrum, Genicularia, Gonatazygon, Micrasterias, Penium, Pleurotaenium, Tetmemorus, Triploceras. The second volume covers Actinotaenium, Coasmariu, Cosmocladium, Spinoclosterium and Xanthidium. The tangled web of Staurastrum is reserved for Vol. III.

Most of the text and most of the illustrations of Vol. II are taken up with the difficult genus Cosmarium. The richness of illustrations is a considerable resource of the work and, as a first approach, most users will doubtless play snap with pictures rather than plough through the dichotomous keys. Nonetheless, provision of the latter is a valuable feature for corroboration or as the primary taxonomic method. Few of the illustrations are of original New Zealand material. Mostly they are 'after' a lot of dead people and one has to assume that the authors have been utterly convinced that New Zealand examples are morphologically identical to the forms illustrated. This is no mean consideration given the triviality of morphological criteria employed in desmid taxonomy. The life-time's experience of desmids, from all over the world, of the senior author, brings reassurance in this regard and one can regard New Zealand desmids as being expertly treated.

The great value of regional floras is the assurance that comes with their use in the country of origin. It is all very well to find a matching picture or description in a foreign book, but, for beginners at least, there is nothing as authoritative as knowing that the organism you have before you has been identified before from your part of the world. And so, New Zealand will have a reliable text at a time when major desmid floras are appearing in the Northern Hemisphere. Just how relevant the work will be to

their Gondwanan cousins in Australia remains to be seen. The volume on Staurastrum will be a test of this.

A feature of both volumes so far published is the considerable information on habitat preferences and distributions within New Zealand. This may or may not be relevant outside the country. Much of the ecological and geographical data of Vol. I is repeated in toto in Vol. II which, like the colour plates of New Zealand lakes, must add to the cost. The colour plates, though pleasing, add nothing to a knowledge of desmids. One would have to be very hard-nosed, however, to dismiss the charming vignettes of the prominent desmidiologists of the past who have contributed to our knowledge of New Zealand desmids.

The book is produced in Christchurch in pleasant format and to a generally high standard. Proof reading could have been more diligent; in places the 00's or 000's of the galleys are retained, or page numbers omitted in other ways. These are small imperfections and will surely be forgiven, especially by New Zealanders who now rival US and Middle Europe in the modern knowledge of their desmid flora.

Meanwhile back in the Tropics.....

I have just received my copy of the first issue of Tropical Freshwater Biology, and I thought I would write you as Editor of the Australian Society for Limnology Newsletter so that you may draw the attention of members of the Society to it. I do so since no doubt many members will find it of interest.

The first issue contains the following contents:

Wetzel, R.G., Preface

Victor, R., The birth of 'Tropical Freshwater Biology'

Fishelson, L., Behavioural and cytological misdevelopment in hybrids and sex-reversed tilapia fish

Edokpayi, C.A., Transport of particular suspended matter in a perturbed stream in Southern Nigeria

Bylmakers, L. & Sobalvarro, A.I., Ecological studies on the profundal benthic invertebrate fauna of Lake Managua, Nicaragua

Silva, E.I.L. & Davies, R.W., Notes on the biology of Hemiramphus limbatus (Hemiramphidae: Pisces) in Sri Lanka

Gorzula, S., Paolini, J. & Thorbjarnarson, J., Some hydro-chemical and hydrological characteristics of crocodilian habitats

Khan, A.R. & Gadru, M., Electrophoretic patterns of blood serum proteins of some fish of Kashmir

Kadiri, M.O., A taxonomic study of the genus Closterium (Nitzsch, 1817) Ralfs 1848 (Desmidiaeceae: Chlorophyta) in a small Nigerian reservoir with ecological notes

Lewis, J.W. & Costa, H.H., The occurrence of an eye fluke (Digenia: Diplostomatidae) from Oreochromis mossambicus in Sri Lanka

Idodo-Umeh, G., Introducing the Editor-in-Chief

As you can see, the contents are quite catholic in spread. They have a common thread, however: all papers relate to work concerning tropical inland waters.

There can be little doubt, considering that over 50% of Australia's natural run-off occurs within the tropics, that the journal should have considerable appeal and value to Australian limnologists.

To order copies of the journal write to:

The Business Director,
Tropical Freshwater Biology,
Idoho Umeh Publishers Ltd,
52 Ewah Road, PO Box 3441,
Benin City,
Nigeria, WEST AFRICA.

The price of a single issue of $US25.

Possible contributors will be interested in the following information:

1. Aim and Scope. This journal aims to promote the publication of scientific contributions in the field of freshwater biology in the tropical regions of the world. Two issues will be published annually and if the reception is encouraging, the number of issues will be increased.
Original research papers and short communications on any aspect of tropical freshwater biology are acceptable. Review articles relevant to the tropics and books for review are welcome. Articles solely concerned with the physical and chemical environment and theoretical issues will be considered occasionally.
2. Submission. Three copies of the manuscript should be sent directly to The Business Director, Tropical Freshwater Biology, Idoho Umeh Publishers Ltd, 52 Ewah Road, PO Box 3441, Benin City, Nigeria, West Africa. Original and two photocopies of illustrations should be sent along with the manuscript.

Submission of a manuscript implies that it is not being considered for publication elsewhere. All papers will be peer reviewed. The Editor-in-Chief will accept or reject or return manuscripts for revision based on recommendations received from referees.

3. Languages. All papers should be written in English. If supplied by author(s), abstracts will also be printed in French, Spanish, German and Portugese. However, an abstract in English is mandatory.

Further information on manuscript presentation may be obtained either by writing to me (W.D. Williams) or to the Editor, Dr R. Victor, Department of Zoology, University of Benin, Benin City, Nigeria.

Quote of the Year

From the National Parks Journal of NSW:-

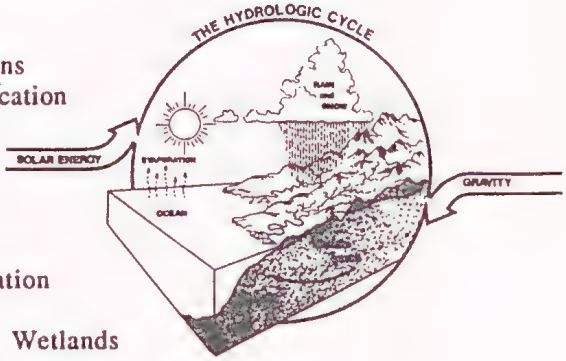
Mr. Jim Ramsey, spokesperson for the proponents of a fast-track multimillion dollar tourist and residential canal estate development, says

"Even though the development would mean the destruction of fifty-three percent of the wetland (in the Bateman's Bay area), that would be balanced by the construction of a wetlands education centre to teach people of the need to preserve wetlands."

NEW PUBLICATION

Proceedings :- National Wetland Symposium;Wetland Hydrology
Published by The Association of State Wetland Managers.
Editors - Dr. Jon Kusler and Gail Brooks
2 chapters, 49 papers

Chapters-
. Hydrology and Wetland Functions
. Hydrology and Wetland Classification
. Wetlands and Flood Storage
. Hydrology and Water Quality
. Wetlands and Storm water
. Case Studies of Assesment
. Wetlands and Groundwater
. Hydrology and Restoration/Creation
. Hydrology and Legal Issues
. Multi-objective Management of Wetlands
. Research Needs



Cooperating Parties-
. National Wetlands Technical Council
. North American Riparian Council
. U.S.A. EPA
. U.S. Fish and Wildlife Service
. U.S. Geology Survey
. Illanois Dept. of Conservation
. Wisconsin Dept. of Natural Resources

Content-
This collection of papers is designed to help the wetland managers (regulaters, planners, researchers, waterfowl managers) understand wetland hydrology, its relationship to wetland functions, the impact of various activities on the hydrology, and approaches for reducing and compensating for those impacts. it is the first attempt to collect, in one volume, papers representing a broad range of disciplines and perspectives concerning wetland hydrology.

The papers are drawn primarily from a three day symposium on wetland hydrology conducted by the Association of State Wetland Managers in Chicago in September, 1987. several papers concerning hydrology from earlier proceedings conducted by the Association and from other sources are also included.

172 MELBOURNE PUNCH.
INTERESTING PRESENTATION AT THE LEVEE, MAY 24, 1867.
SAM ORR, ESQ., BY THE PRESIDENT OF THE ACCLIMATISATION SOCIETY.

Please allow me to bring to your notice the publication of my new book: SALMON AT THE ANTIPODES A History and Review of Trout, Salmon and Char and Introduced Coarse Fish in Australasia.

This is not only the story of the introduced fishes of Australasia, but of fishermen, fisheries and trout hatcheries, of sparrows and rabbits and the acclimatization craze of mid 19th Century Australia and New Zealand, and much more. In some ways it reflects the social values and development of early European settlement in Australia and New Zealand.

It is not another of the *what fish is that?* or *where to go and how to catch them* or *reminiscences of an angler* , etc but something quite different. It will tell you how to differentiate between a trout , a salmon and a char, their natural history and how and why they were introduced into Australasia. Similar consideration is given to the Perch, Tench and Carp and Gambusia and many other coarse species.

Whilst praising the virtues of trout and salmon the book also looks at the other side of the exotic fishes now at large in our local waterways and their destructive environmental effects and discusses at length the decline and future of our own native species including Murray Cod, Golden Perch, Gippsland Perch and so on.

The book also spells out the dangers of importing and keeping all sorts of exotic animals - for example the deadly Piranha. Hopefully you will consider the book as a non-biased and well-balanced approach to the history, and a pointer to the future of freshwater fisheries in Australasia.

The author is well qualified in having over thirty years experience in the areas of natural history and management of freshwater

fisheries, working very closely with anglers, commercial fishermen, naturalists and environmentalsists.

For just on 25 years, he has been the Regional Fisheries and Wildlife Officer at Ballarat, Victoria, a position he still occupies with the Department of Conservarion, Forests and Lands.

The book measures approximately 280 x 210mm, is case bound, contains just on 400 pages, about 280 magnificently produced historic illustrations including some beautiful colour reproductions.

The book has already been described as the ultimate benchmark on the subject and will undoubtably prove to be the most valuable reference work of its kind so far published. You should find it to be absorbing reading and parts of it very amusing.

It will prove to be valuable text and reference work in any library and in time will appreciate considerably in value and became a valuable collectors item.

Initially only a small number of books will be printed and thus, by necessity, will only be available from a limited number of book or tackle shops or directly from the author:

John Clements,
22 Mimosa Avenue,
Alfredton,
Ballarat,
Victoria 3350, or telephone (053) 342643.

Asian Fisheries Society
Workshop on Introduction of Exotic Aquatic Species in Asia
Darwin, 19-21 June 1988

By Dr F.B. Michaelis, Senior Project Officer,Wildlife Dynamics Section, National Parks and Wildlife Service, Canberra.

Asian Fisheries Society

Was initiated by core groups in the Philippines (ICLARM) to promote the interchange between Asian fisheries scientists and technicians, of use to aid agencies, National and State Governments, universities etc.

Workshop Participation

The workshop was attended by 20 participants, representing India, Sri Lanka, Malaysia, Philippines, Indonesia, Thailand, Singapore, Japan, Australia and Indonesia and funding agencies such as ICLARM and IDW of Canada.

The current president of Asian Fisheries Society, which has more than 1000 members, is Dr Chua Thai-eng of Malaysia and the workshop chairman was Dr Sena da Silva of Sri Lanka. The level of technical expertise and presentation was high.

Thanks were expressed to AIDAB for travel assistance and the International Development Workshop of Canada for publication of the proceedings.

Workshop Discussion

Background papers (circulated before the meeting) were presented by 11 participating nations early in the 3 day workshop and discussions centred on guidelines and policy statement. On the positive side, there have been socio-economic gains from introductions of exotics eg. Asian carp in terms of increased aquaculture production to provide cheap protein and increased foreign exchange. These socio-economic factors are seen as particularly important in the Asian context.

On the negative side, there have been problems with African cichlids eg.Tilapia and other species that have become wild and affected native fish fauna. These environmental factors are seen of particular importance in Australia, where demand for freshwater fish as food is relatively lower.

Aim

The aim of the workshop was to develop appropriate means to better regulate exotic species transfers, which involved:

. Guidelines and code of ethics for introductions

. policy statement for circulation to all Asian Governments

Outcome

All participating nations, and those not able to be present at the workshop, have been asked by the chairman to submit details of existing guidelines, and regulations for import control for publications in the workshop proceedings. the Australian system of controls is the most comprehensive in the Asian region and was used as a model.

A standing committee on Exotic Fishes of the Asian Fisheries Society has been formed. ANPWS will be formally asked to nominate Dr. Michaelis. The committee will initially work through correspondence and there will be no cost to ANPWS for attendance at any future meetings.

I take this opportunity to thank the Director for permitting attendance at the meeting to outline Australia's position.

"Just pull it off and apologize, Cromwell . . . or we'll go out in the hall and establish this pecking order once and for all!"

STATE and TERRITORY AFFAIRS

Victoria

Correspondent: Tim Doeg, Museum of Victoria, 71 Victoria Crescent, Abbortsford, Victoria 3067.

Well, things are on the move here in Victoria. In a post-Christmas frenzy of activity, following on from the traditional pre-Christmas frenzy of inactivity and overt consumption of things liquid, ASL members in Victoria have started the new year in fine style.

Mark Harvey has taken the prize for "Job-of-the-Year" by landing the plum post of Curator of Arachnology at the Western Australian Museum. We can only assume that the arduous task of studying water-mites for so many years (and knowing that he may never win another Door Prize in that field) has sent him crazy. He leaves for Perth in mid-February, which only allows him one more chance to deliver the now legendary "Water Mite Tales" at a Wassermilben-Ephemeroptera conference in Albury before he leaves.

Tim Doeg seems to be a close runner-up, and is soon to be moving from disturbing the bed of the Acheron River to working on the streams in the Otways. Good old Conservation, Forests and Lands have found money for a 6 year (yes folks, a contract for 6 years - shades of permanence!) multidisciplinary study of the effects of logging on catchments in the Otways.

Speaking of the Acheron River, here's a little tale for you. Authors who will remain anonymous produced a paper on the subject and submitted it to a well-known Australian journal. Five months later, they produced another paper on a related theme and sent it to Freshwater Biology in England. Within one month, they had received the referees reports from Freshwater Biology, while still holding only the acknowledgement of receipt from the Australian journal. As Tony Grieg might have said, "It's a funny game, limnology".

Elsewhere in the State (Australia Post and Telecom are losing money hand over fist, judging by the lack of reports from certain areas), things are simply moving on. Bruce Chessman is busy solving the riddles of stream classification with Richard Marchant. Kim James and Ian Campbell are busy solving the riddles of organic decomposition. Rick Edwards has dammed (or should that

be *****!) Keppel's Creek to solve the riddles of DOM, FPOM, CPOM and those other mantras. And the boys and girls at the Rural Water Commission (or is that the Agriculture Department?) are busy solving the rest of the riddles.

Speaking of riddles, "What's the difference between a chimpanzee and a bulldozer?" Answer next time.

North Queensland

Correspondent: Ros St Clair, James Cook University

The new year has started well in the dry tropics, with the first decent "wet" for many years. The Centre for Tropical Freshwater Research is active in the new year with projects in various parts of the State, although I will only report on the intensive work being done at Birthday Creek in this newsletter. One site on this rainforest creek in the mountains north of Townsville is the subject of a multidisciplinary study out of all proportion to its size.

Bob Congdon is working on nutrient cycles and several botany students are working on various aspects of forest ecology adjacent to the stream. Lee Benson is continuing his PhD work looking at the nutrients once they arrive in the stream in a study of the dynamics of organic matter. Lee has selflessly left Townsville to work as a stream biologist for the Sydney Water Board, in an attempt to boost numbers of ASL members in that capital. This makes his study of Birthday Creek one of the few remote sensing studies in limnology.

Richard Pearson has recently started an ARC funded study of community dynamics using artificial channels beside the creek (obviously there wasn't enough room left in it). Michael Trenerry and Jacqui Nolan have finished their honours work on the life history and diet of a principal shredder, a Calanoceratid caddis (Jacqui) and the diet, population dynamics and competitive interactions of tadpoles (Mike).

Thinking the Australian effort was inadequate, the Canadians Ron Davies and Darwin Monita are spending a year here to study breakdown of leaf litter and community respiration. Even the southerners are getting in on the act. Sam Lake sent Sabine Shreiber here to collect rock fauna from the creek in October. However, she was sent downstream to the same place Ian Campbell had studied his mayflies.

With the biology pretty well sewn up, the engineers and hydrologists are moving in. Ray Volker and Alan Pomeroy are looking at the contribution of groundwater to stream flow and nutrient movement into the stream.
What makes this creek so interesting? Just down the road is "Ivy Cottage" with great pumpkin scones and tomato jam. What's more, you have to fight off the honeyeaters, rosellas and rifle birds to get to the food. The ideal study site.

There are limnologists in North Queensland who aren't working at Birthday Creek. Quite a few are working on the Burdekin R. (or both Burdekin and Birthday - next decade we feature the letter "C") but more on that next newsletter. Of those who like to work far from the madding crowd, I only just caught up with Ross Alford and Norm Milward. Ross is working on population and community ecology and ecological genetics of amphibians and also interactions between amphibian larvae and other taxa (and yes, he has been to Birthday Ck at times). He is also working on experimental ecology of freshwater species. Norm has extended his work on freshwater fish and fisheries to include aquaculture of fin fish and Cherax spp. I prefer pumpkin scones with my Cherax and Barra.

Northern Territory

Correspondent: Max Finlayson ARRRI, Jabiru, NT.

The ARRRI Biological Monitoring team has been gearing up for Wet season monitoring of possible water releases from Ranger Uranium's wastewater ponds. Perhaps in this year of 'La Nino' they may get to monitor a 'real release' of wastewater. That is all dependent on the climate and Government policy decisions. Nevertheless, Chris Humphrey and Co are ready and waiting.... A very brief foray has also been made to Rockhole Mine Creek, a small tributary of the South Alligator River, polluted by acid water from an adit of an abandoned and unrehabilitated uranium mine worked in the 1950-60s period. Surveys of the fauna might provide useful information on the relative sensitivities of particular species for application in the assessment of any future environmental impacts resulting from mining in the South Alligator River (within the Conservation Zone contained within the boundaries of stage III of Kakadu).

Both Maryanne McKeagh and Max Finlayson have recently undertaken major shifts in 'career' direction. Maryanne has joined

the NT Conservation Commission as an Environmental Officer (environment assessment). In other words, no more damnable aquatic bugs (apologies to Dr Campbell), thank god. Max has finally dragged his feet out of the swamps, shaken off the leeches and marched into the woodlands of Kakadu to do revegetation research. A touch of 'deja vu' back to his pre-Honours interests, before getting thrown into the Perth coastal lakes by Arthur McComb. (Perhaps these moves are an anti-response to the Greenhouse effect.)

A big event in the north recently was the visit by Peter Cullen to Kakadu - Yellow Waters lagoon and the Crocodile Hotel in particular. Our current Jolly Award recipient seemed to enjoy the airconditioning more than the natural illumination aspects of northern life. He was doing something on bank erosion for ANPWS.

Planning for the 1990 ASL Congress is well underway. Tentative bookings have been made and dates set (see separate notice). The Australian Institute of Biology also plans a meeting in Darwin later in the same week.

There is no news from Animal Holdway this issue as he is currently writing up toxicity testing protocols. You may not believe it, but he has been kept reasonably quiet by this activity (it has nothing to do with the head-butting activities during the 'summer' rugby season!), God-damn!

STOP PRESS: Max Finlayson has decided to return to fresh water, but is about to forsake tropical climes when on 3 July 1989 he will take up a position as Assistant Director- Wetlands with the International Waterfowl and Wetland Research Bureau (IWRB) at Slimbridge in England (a village located between Bristol and Cheltenham). The IWRB is hosted by the Waterfowl and Wetland Trust which was established by Sir Peter Scott, the English naturalist.

The IWRB is an International, non-governmental organisation established in 1954 to stimulate and coordinate research and conservation of waterfowl and their wetland habitats. It is financed by membership dues from 44 countries (including Australia) and a wide range of project support. The IWRB was instrumental in the creation and promotion of the Ramsar convention on Internationally Important Wetlands.

His position is newly created and is directed towards coordinating wetland inventory, management and conservation programmes

and to provide technical support to the Ramsar secretariat. Emphasis is currently being placed on the Mediteranean and East African regions with proposed extensions to South America and Oceania.

Wheras much of the work of the IWRB was directed towards waterfowl conservation a greater emphasis will now be placed on the wetlands themselves. This will involve the establishment of working groups to address various functional aspects of the wetlands. He anticipates that establishing these groups will initially occupy most of his time.

Congratulations Max! It sounds like a great job.

South Australia

Correspondents: Andrew Boulton and Lance Lloyd, Department of Zoology, University of Adelaide, GPO Box 498, Adelaide 5001.

Quite a bit of news from the dry southern state. Congratulations to Jim Puckridge who has submitted his Masters on the dreaded bony bream - undaunted by the traumas of thesis writing, he wishes to prolong the torture by doing another (for a PhD) on the relationship between flooding and fish recruitment in the Cooper/Murray. He already has a pretty sizeable data set and some interesting results.

Honours theses have just been assessed and two of Keith Walker's students achieved Firsts (Anne Southgate on the biology of "lignum" on the Murray floodplain and Ross Corkrey on the use of Fourier Analysis for measuring the shape of mussel valves). Fran Sheldon and Ross have obtained scholarships and will work with Keith on assorted Murray projects while Richard Musgrove will do a PhD under Mik G. on yabby energetics.

Other limnological theses from the Zoology Department included work on macroinvertebrates in macrophytes along the main channel of the lower Murray by Sue Farnham, respiration in yabbies and Murray crays by Tania Bezzobs and the influence of various artificial diets on yabby growth by Damon Oliver.

Mike Kokkin has almost fully recovered from trying to stop a speeding car with a bicycle (his main fear was that the nurses that he taught would come back to haunt him!) and Alice Wells is

recuperating after an operation on a slipped disc - the doctors assure her that she will be "rolling rocks by April". We all bid them speedy recovery!

Bill Williams is packing some protective clothing for his trip to South Africa next week; his microcosms now dot much of the Adelaide hills and are threatening to replace salt lakes as the most abundant water body in South Australia. Keith Walker, Fran Sheldon and Andrew Boulton are beginning lab. experiments on the tolerance by juvenile snails to high levels of salinity and turbidity in an effort to figure out why snails are almost entirely absent from the lower Murray. Mike Geddes is still tethering hapless Murray crays in the lower Murray (actually its a ploy to catch big cod!) and seems little altered by the media exposure and press fame he has received lately.

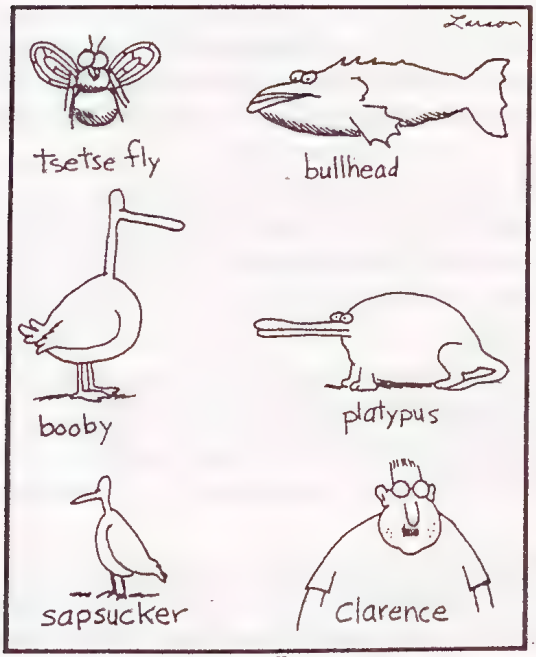
Martin Thoms has found the ultimate macho approach to limnology - he is now collecting cores of sediments from 6 m of water in the lower Murray using massive generators, pipes, cutting edges and "vibrating heads" (purchased from the western end of Hindley St). To extract these cores requires SCUBA work at the bottom of the Murray - he claims to be able to see two inches at 6 m down, i.e. from his eyeball to the glass of the mask! He is being helped by Adrian Stokes who is funded by one of the AWRAC studentships and who plans to do an Honours thesis this year on lead "ingestion" by waterfowl. The other AWRAC studentship is held by Terry Bertozzi who is helping Lance with work on the wood colonisation and decomposition of redgum blocks in the lower Murray. Actually, the market for redgum bookends is wide open...

We have had a few visitors lately (including Father Christmas). Pierre Horwitz was over in mid-January to gather information upon the conservation status of Crustacea in South Australia and to extract historic references from the Hynes/Williams collection. Paul Humphries, also from the Apple Isle, swapped fishing stories with Lance before winging his way west (where the real fish are!). David Mitchell from MDFRC came down to visit Keith and the other turbiphiles in the RML. Hugh Dawson from the FBA River Lab. will be here for a week in early February in search of a native Aussie weed that has run riot in English streams. Redfin's revenge?

George Ganf has just completed a report on some of the wetlands of the SE for the Australian Heritage Commission regarding listings for the National Estate. He has also started a wetland survey of Hindmarsh Island for the Department of Environment and

Planning and with Marcus Brownlow plans to study wetland nutrients with funding from the Wildlife Conservation Fund. Congratulations to Marcus for his First Class thesis on the effects of nutrients on the macrophyte growth in Bool Lagoon.

Phil Suter reckons he will have his OSS samples sorted by May and then its "look out caenids!". Phil claims to "have these by the caudal filaments" and would gladly welcome any caenid material from anywhere. Other goss from E&WS at Bolivar is that Mike Burch and Karen Beck have started looking at the effects of Chloramine on phytoplankton.



Unfair animal names

Tasmania

Correspondent: Pierre Horwitz, Dept of Goegraphy and Environmental Studies, University of Tasmania, GPO Box 252C, Hobart, 7001.

The increasingly popular Alastair Richardson (Zoology Dept. Uni. of Tas.), since the last newsletter, with a superb display of agility and a flying leg tackle which would leave most ping pong athletes awestruck, has wrested the editorialship of the 'Fauna of Tasmania' series, after its lengthy torpor. The next in the series, 'A Handbook of Freshwater Fishes of Tasmania' or something thereabouts, by Wayne Fulton, is due to be released in the first half of this year. We wish Alastair and Wayne much luck in the rejuvenation of this important and useful series. They'll possibly need a little more luck to tame the wild Stuart Chilcott who has taken the plunge and enrolled as a Masters student to engage the Ephemeroptera of Tasmania single-handedly. Another starter in 89 is likely to be Mark Nelson, formerly of Inland Fisheries fame, who, after having replaced the corroded parts of his anatomy (see King River), takes on the effects of forestry activity on the freshwater fauna, a project funded by the Tasmanian Forestry Research Council (to Roy Swain and Alastair Richardson). Elsewhere at the University, Premek Hamr the terrible spends much of his time slinking around the corridors wearing sunglasses, avoiding immigration officials, mumbling about 'chapters' and being heard to utter the phrase 'freshwater crayfish never had it so good'. Jean Jackson, sister of Michael and twice as talented, is accumulating dots on her map of Tasmania at a vast rate but still refuses to say what they mean and one can only assume that they represent conquests of some order, rather like notches on a butt. Seen gracing the University's alimentary canals recently was none other than Brett O'Brien, bearing gifts and a plethora of ideas, wearing twelve jumpers on a hot Hobart's day (25° C) and had the cheek to thrash your correspondent at badmington. Rumours are rife throughout our sleepy little hollow that Brett's supervisor at the University of Western Australia, old 'equal-footed' Brenton Knott, the Tasmanian boy from Campbell Town, is set to reassemble his bushwalking boots for a stroll (albeit by helicopter) along the majestic plains of the south west soon, in the next installment of the World Heritage Area surveys, due to commence last week. We'll keep you pasted. Brian Mills also spotted the beacon of Tasmania from far away Adelaide and has returned to pursue marine delicasies and provide parastacid workers with a refreshing outlook.

The limnological highlight of the Greenhouse 88 conference was a plea by Peter Davies of Inland Fisheries for minimum flow requirements for regulated rivers, which was endorsed unanimously.

David Rounsevell and Steven Smith of the Department of Lands Parks and Wildlife have initiated the Tasmanian Invertebrate Newsletter, which might be of value to anyone wanting information on, or specimens of, any particular freshwater invertebrate group.

Finally we were approached by the very rev. Fred Nail (said to be one of Paul Humphries' examiners) who was irate at the depths to which the correspondents from Queensland had sunk in the November ASL newsletter with that pathetic crude limerick (after having said they wouldn't). We could only agree with Fred and one of us said they could do better but nobody else did. After discussing the shallow poetry of the Adelaide rabble we were left with the persistent impression that Tasmania houses the more literary and intelligent of the nation and we concluded that other correspondents might start with A.A. Milne and maybe work up from there after passing kindergarten.

Western Australia

Correspondent: Shirley Balla, B.E.S., Murdoch University, Murdoch 6150.

Things limnological are booming in W.A. with the award of four AWRAC grants in partnership with the Water Authority and the E.P.A. At CSIRO Lloyd Townley and Jeff Turner are to study the interaction of wetlands and the unconfined aquifer on the Swan Coastal Plain. Ultimately hydrological and nutrient interaction models will be produced. Arthur McComb and Ray Froend commenced a project last September on the effect of changing water levels on the fringing vegetation around selected wetlands, whilst Shirley Balla will be studying the effect on the lake fauna. Jenny Davis and Fiona Whittles have commenced the 'Megawetlands' study of 42 wetlands in the Perth area to arrive at a wetland classification on the basis of invertebrate community structure and water quality data.

Arthur is also to be congratulated on his appointment as Professor of Environmental Science at Murdoch, commencing in June. Several of his students from the Botany Department and the Centre for Water Research at UWA will be making the move to Murdoch with him.

Ian Potter is back from overseas climes having seen lots of estuaries in South Africa. He also visited Dr Lynneth Beckley at the University of Capetown and Dr Alan Whitfield at Grahamstown. Professor Potter was also suitably impressed by the countries vineyards and wines.

Congratulations are due to limnologists getting knotted. Ivor and Jane Growns tied theirs in January. Neil Loneragan and Frances D'Souza plan to do the right thing before Neil takes up a post-doc position in Canada with Dr Geoff Power to study fish ecology in the Great Lakes.

Meanwhile at Murdoch we wait with baited breath for the return of Leon (who?) Barmuta from the good old U.S. of A.. The newsletter is considerably lighter (you may have noticed) without his philosophical epistles.

Karen McRoberts is coping with large numbers of dead and dying birds for her honours work on the Botulism problem in Perth Wetlands. A plea comes from Karen to ASL readers for information

on any other instances of botulism elsewhere in Australian wetlands please! Karen can be contacted at B.E.S. at Murdoch.

Mark Lund, in an attempt to get his name (and adorable face) in the paper, gratuitously dumped tonnes of alum into Jackadder Lake for Stirling City Council, incidentally removing algae from the water column and reducing the numbers of midges.

At U.W.A. stream ecology is thoroughly under investigation! Pete Davies is in the final year of his doctorate on "The Importance of Autotrophy and Heterotrophy to Stream Community Function". Louis Lebel is in his second year looking at "Factors Influencing the Distribution of Trichoptera in Headwater Streams of the Northern Jarrah Forest". This year Belinda Murray starts her PhD on "Life History Strategies of the Fauna of Temporary Headwater Streams". Inspired by the work of big brother (?) Theresa Lebel is studying "Fungal Community Structure: its Role in the Feeding Ecology of Stream Invertebrates" for her honours project. In the same year Sue Holland starts her honours work on "The Effects of Small Scale Disturbance on Macroinvertebrate Communities in Riffle Habitats".

In the Aquatic Research Laboratory Andrew Storey and Pauline Gazey have recently submitted reports to the Water Authority on work over the last fews years. These reports cover the potential impact of dams in the North Dandalup and Lower Canning catchments, water quality studies on the Canning Reservoir and Stinton Creek and an overall report on Biological Monitoring in the Streams and Rivers of the Swan Coastal Plain. The reports will become public in the near future. New projects for the ARL include a study on regulated rivers and minimal flow requirements, and continued work on organochlorine monitoring using freshwater mussels.

Recently UWA and Murdoch had a visit from Hugh Dawson from the Freshwater Biological Association in the UK. He was looking for *Crassula helmsi* (an aquatic plant they've got a lot of over there).

Brenton Knott played host to Professor Don Kelly and Anne Wood from Warwick Uni. They were isolating strains of sulphur metabolising bacteria in microbial mats associated with stromatolites under varying salt regimes in lakes of the Yalgorup National Park.

News from the Botany Department at UWA is that the proceedings from last years Groundwater Conference have just been published.

Apologies.....

.....to Sam Lake for the following typos which crept into his review of "Ecology-Potentials and Limitations" by Tom Fenchel. The following errors were the result of our gremlins, not Sam's.

p.28, 2nd para., line 4- "imminent" = emminent
p.28, 2nd para., line 9- "oblogation" = obligation
p.28, 2nd para., line 14- spelling of continual
p.29, 1st para., line 12 - spelling of endeavours
p.29, para. 4, line 6 - spelling of disapointingly
p.30, para. 2, line 11 - spelling of "thet"

EMPLOYMENT OFFERED EMPLOYMENT WANTED

Ladies and Gentlemen:

I am presently in my final year studying zoology at the University of Wisconsin-Madison. For the past year I have carried out research, both of my own and with graduate students and professors, concerning the zooplankton-phytoplankton interactions in Lake Mendota in Madison.
I am interested in opportunities for research and employment at your facilities, including summer or yearly jobs or interships.

As stated above, I have worked with freshwater plankton, but I am equally interested in marine plankton ecology, and also very interested in sea horse ecology. I have also worked with a veterinarian, and have had courses relating to field ornithology and ichthyology, as well as general ecology. I have advanced skills with many animals, including horses, dogs and cattle. In addition, I am very fond of spending weeks at a time camping in the wild.

I would greatly appreciate your sending to me, at the address below, any information regarding these subjects, including suggestions for further contacts with individuals that I might make. Thank you very much.

Susan M. Moegenburg
118 W. Johnston St.
Apt. M
Madison, Wisconsin
53703 USA.

Research Assistants in Limnology

Research assistants are needed in a) elemental cycling in running waters b) littoral ecology of North American Great Lakes, c) diatom ecology and paleoecology. Candidates for a graduate degree will be given preference (Can $11,000 p.a.) but postdoctoral applicants will also be considered (Can $22,000 p.a.). Funding for these positions subject to budgetry approval. For more information contact Dr. H.C. Duthrie, Department of Biology, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1.

FASTS
AFTER 2 YEARS - IS IT WORKING FOR US?

A question both implicitly and explicitly posed during the recent Australian Marine Science Association Annual Conference and AGM concerned whether member societies, and indeed members, were getting value for money from FASTS, i.e. is FASTS effective? Members of other marine and aquatic societies (including ASL) which form FASTS' Group 11 also have posed this question. That it arose was not unrelated to discusions on the increase in FASTS capitation fees (From $1.50 to $3.50)!

In the main, the methods of science and technology depend on quantifying, measuring and describing the results achieved. The scientists and technologists who constitute FASTS membership might be inclined to assess FASTS performance in counts of output; e.g. per year about 50 press releases written and published, about 10 submissions to government reviews and enquiries, 30 or so papers given at conferences, public meetings, etc.

In the arena of attempting to influence government policy, however, such scoring is not directly relevant, though it is a good measure of activity. We would be worried about FASTS performance if these counts were low!

To complement this numerology, FASTS has recently circulated a summarised "Record of Achievement, 1986-88", which describes the range of activities it has undertaken over the last two years.

In effect, the activities constitute the raw material which, when used effectively can help to achieve FASTS' (and, we hope, the majority of the scientific community's) objectives. Desired outcomes are, at the top level, secure and adequate levels of S&T funding and policy support and, for both more immediate and long term purposes, recognition of FASTS as a major body to consult on science policy.

The top level objective may not always be achieved due to external factors in the social, political and economic environments. Being an active part of the political consultative process, however, helps to ensure that the views of a lobby group are heard where it counts.

Industry and other employment sectors have long used peak councils of sub-sector associations as powerful voices in the political arena. The Confederation of Australian Industry, National

Farmers Federation, Australian Council of Trade Unions, etc., are well known examples. Member associations may still petition government on issues of special interest while using the peak body to act on broader matters or even on the association's behalf over specific areas. Some of these peak bodies have formal, close and powerful relationships with government while maintaining their independence. For example, the president of the National Farmers Federation was on the official Australian delegation to the recent GATT talks in Montreal, Canada.

Without a doubt peak bodies maintain their power through professionalism and through solidarity of member associations, at least on key policies.

FASTS was formed relatively recently (November 1985) and has made rapid progress in obtaining recognition for itself as a peak body and in promoting S&T support as an issue for public concern. The members of the executive are personally known to government ministers and to opposition and ACTU science spokespersons. Fasts' views and formal submissions have been actively sought by ministers during the recent epidemic of government reviews in the science, technology and tertiary education areas.

Several of these reviews covered specific topics of interest to individual FASTS associations, e.g. the review of the Bureau of Mineral Resources concerned members of the various geoscience societies. FASTS consults with the relevant societies while preparing submissions by the concerned societies. Rather, FASTS' submissions focus on broader issues as well as supporting specific views of member societies.

These signs of influence are tangible, through informal indicators, that FASTS is known and is having an impact. More formal recognition of FASTS has already occurred through its two seats on the Steering Committee on the Discipline Review of Teacher Education in Mathematics and Science, through the influence FASTS has been able to exercise over membership of the Australian Research Council and its sub-committees.

FASTS therefore can be seen to have already achieved significant recognition as part of the government consultative process. To remain there and enhance this position will require continued, effective activity of the types listed earlier in this article, as well as solid support from member societies. FASTS is looking also towards the future through its "three-pronged strategy" for

lobbying on behalaf of sciences. The first part of this strategy corresponds to that described above, and is concerned with becoming effective within the present government system. The second part seeks to gain influence with opposition parties in S&T matters to cover the eventuality of a change of government. This influence already is operating; FASTS had major input to the formulation of the Liberal Party's science policy, though it remains critical of some aspects of the policy. The third part is concerned with working with the ACTU to develop that organisation's S&T policy, due for release at the Annual conference in late 1989. In the meantime, FASTS will continue all its present activities to keep S&T on the public's and the government's agenda.

In overview, it appears that FASTS is value for money for Australian scientists and technologists. The Federation has come a long way in a short time through the combination of hard work by its (few) paid staff and its volunteer executive and board, through generally strong support from member societies and, lastly, through being an idea whose time has arrived!

Meryl Williams (FASTS' Group 11 Board Member and member of the Australian Marine Science Association, the Australian Society for Fish Biology and the Statistical Society of Australia)

Laurie Hammond (Vice-President of FASTS, President of the Australian Marine Science Association and member of the Australian Coral Reef Society, the Geological Society of Australia and the Association of Australasian Paleontologists)

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Thanks for the latest lot of references. As you will notice, the bibliography is also for inclusion of "limited circulation", "internal reports" and other non-refereed/published papers. Please don't forget to send these to me. The address for inclusion is Russell Tait, Esso Australia Ltd, P.O. Box 4047, Sydney, N.S.W., 2001.

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Pomp, R. & Wilbert, N., Taxonomic and ecological studies from Australian saline soils: colpodids and hymenostomate ciliates. *Aust. J. Mar. Freshwater Res. 39*:479-495.

Townley, L.R., Nield, S.P. & Davidson, M.R., Dimensionless simulations of two-dimensional flow in the vacinity of shallow water table lakes. Proc. International Symposium on Interaction between Groundwater and Surface Water. Ystad, Sweden.

Russell Tait is transferring with Esso to their corporate toxicology and industrial hygiene laboratory at East Millstone in New Jersey, for 12 months from mid-April 1989. He will be carrying out ecotoxicological research for affiliated companies throughout the world. The laboratories are located some 60 miles SW of New York.

Following the assignment, he will be moving to Calgary in Canada, to work with Esso Resources Canada, on the environmental permitting of a new synthetic fuels project, located near the North West Territories/Alberta border. He will be in Calgary for at least 12 months.

Because of Russell's absence overseas for the next two years he will not be able to continue the compilation of the bibliography.

Is anyone willing to volunteer to take this task on?

Russell can send them an electronic copy of the listing to date if required.

COMING EVENTS

1989

10-19 MAY IAHS Third Scientific Assembly., Baltimore, Maryland . A forum for review of the latest developments in Hydrology. IAHS Assembly, c/o American Geophysical Union, 2000 Florida Avenue, N.W., Washington D.C. 20009 USA

29 MAY -3 JUNE Symposium on Intrazooplankton Predation, Broa (Sao Carlos), Brazil. Registration by Dec 1st. For forms and information contact: H.J. Dumont, Institute of Ecology, State University of Ghent, Ledeganckstraat 35, 9000 Ghent, Belgium, or J.G. Tundisi, Limnological Laboratory, CRHEA, Department of Hydrology and Sanitation, USP, Av. Dr. Carlos Botelho, 1465, Sao Carlos, SP. 13560, Brazil.

30 MAY-1 JUNE ACADS Watercomp '89. The first Australasian conference on technical computing in the water industry. Contact The Conference Manager, Watercomp '89 Conference, The Institution of Engineers, Australia, 11 National Circuit, Barton, ACT, 2600.

6-9 JULY International Symposium "Wetland and River Corridor Management" Contact: Jon Kusler, Assn. of State Wetland Managers, Box 2463, Berne, NY 12023, USA. tel (518) 872-1804.

7-10 JULY ASL 28th Congress and AGM Canberra CAE, Belconnen ACT. Contact: Dr R. Norris, Water Research Centre, School of Applied Science. CCAE, PO Box 1, Belconnen ACT 2616.

8-11 AUG Symposium "Biomanipulation-Tool for Water Management" Artis Zoo, Amsterdam, The Netherlands. Details from:- Convention Bureau,PO Box 1558, 6501 BN Nijmegen, The Netherlands.

6-10 AUG The Finnish Limnological Society presents a symposium titled "The Dynamics and Use of Lacustrine Ecosystems" Contact: Ms Kati Tyystjarvi, Finnish Science Centre Foundation, PO Box 166, SF-01301, TAA, Finland. tel 358-0-85799, fax 358-0-873 4142.

31 AUG-6 SEP Vth International Symposium on Paleolimnology. Contact Prof.Frank Oldfield,Geography Dept.,Univ of Liverpool,PO Box 147,Liverpool L69 3BX, UK.

11-16 SEP 6th International Symposium on Trichoptera, Lodz and Zokopane, Poland. Registration is before 30 Sept. 1988. For forms and other information contact Dr A. Nebois, Dept. Entomology, Museum of Victoria, 71 Victoria Crescent, Abbotsford, Victoria, 3067. Ph 419 5200

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20-23 APRIL ASL 29th Congresss and AGM, Jabiru NT, and Pre-Congress Symposium on the 11th "Water Management in the Alligator Rivers Region". Enquiries: Isabell von Oertzen tel: (089) 792 300, Fax (089) 792 076, Telex 85457.

2-7 JULY International Crustacean Conference, Brisbane, Australia. Contact:- Crustacean Conference Secretariat,Uniquest Limited, University of Queensland, St Lucia, Qld,4067.Ph (07) 377 2733, Fax (07) 870 3313

23-30 AUGUST V International Congress of Ecology "Development of Ecological Perspectives for the 21st Century", Yokohama, Japan. Contact: Secretary General's Office for Intecol 1990, Institute of Environmental Science and Technology, Yokohama National University, Yokohama 240, Japan.

Regional Executive Members 1989

Mr Andrew Boulton
Zoology Department
University of Adelaide,
PO Box 498
Adelaide, S.A., 5001.
(08) 228 5689

Dr Stuart Bunn
School of AES,
Griffith University,
Nathan, Queensland, 4111
(07) 275 7407

Mr Tim Doeg,
Museum of Victoria,
71 Victoria Cres.,
Abbotsford, Victoria, 3067
(03) 419 5200

Dr Max Finlayson
ARRR Institute,
Jabiru East, NT, 5796
(089) 792 300

Dr John Harris
Fisheries Research Institute,
Cronulla NSW, 2230
(02) 527 8411

Dr Pierre Horwitz
Centre for Env. Studies,
University of Tasmania,
Hobart, Tasmania, 7000
(002) 202 697 or 642

Dr Richard Norris
Applied Science, CCAE
PO Box 1,
Belconnen, ACT, 2616
(062) 522 543
Fax (062) 522999

Mr Tim Wrigley
Environmental Science
Murdoch University,
Murdoch, W.A., 6150
(09) 332 2370